

REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed January 5, 2006. In the Office Action, the Examiner notes that claims 1-49 are pending of which claims 1-6, 14-30 and 38-49 are rejected and claims 7-13 and 31-37 are withdrawn. Applicant herein amended claims 4-5, 14-15, 17, 20, 22, 25-30, 38-39, 41-42, 45-46, and 49. Claims 23 and 47 are hereby cancelled. The Examiner's comments respecting priority and objections to the Oath/Declaration and claims are addressed below.

Applicant submits herewith a newly executed declaration in order to remove the claim of priority to U.S. Patent Application Serial No. 09/330,274 which was incorrectly claimed in the original declaration executed by the inventor.

In view of both the amendments presented above and the following discussion, Applicant submits that none of the claims now pending in the application are indefinite, directed to non-statutory subject matter, or obvious, under the respective provisions of 35 U.S.C. §§112, 101 and 103. Thus, Applicant believes that all of the claims are now in allowable form.

It is to be understood that Applicant, by amending the claims, does not acquiesce to the Examiner's characterizations of the art of record or to Applicant's subject matter recited in the pending claims. Further, Applicant is not acquiescing to the Examiner's statements as to the applicability of the prior art of record to the pending claims by filing the instant response.

PRIORITY

The Examiner has objected to the priority claim, stating that for the current application to properly claim continuation in part priority to the 09/330,274 application, there must be at least one common inventor between the two applications.

In response, Applicant respectfully submits that Applicant mistakenly claimed priority to U.S. Patent Application Serial No. 09/330,274. Applicant submits herewith an updated declaration in which the claim of priority to U.S. Patent Application Serial No. 09/330,274 is removed.

OBJECTIONS

Oath/Declaration

The Examiner has objected to the oath stating that for the current application to properly claim continuation in part priority to the 09/330,274 application, there must be at least one common inventor between the two applications.

In response, Applicant respectfully submits that Applicant mistakenly claimed priority to U.S. Patent Application Serial No. 09/330,274. Applicant submits herewith an updated declaration in which the claim of priority to U.S. Patent Application Serial No. 09/330,274 is removed.

Claims 17 and 41

The Examiner has objected to claims 17 and 41 stating that the comma in line 2 of both claims should be deleted. Applicant has amended claims 17 and 41 as suggested by the Examiner. As such, the Examiner's objections are moot and should be withdrawn.

Specification

The Examiner has objected to the abstract because it is two paragraphs long. Applicant has amended the Abstract to overcome the Examiner's objection. As such, Applicant submits that the objection is moot and should be withdrawn.

Further, the disclosure has been objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant has amended the specification to delete the embedded hyperlink and/or other form of browser-executable code. As such, Applicant submits that the objection is moot and should be withdrawn.

REJECTIONS**35 U.S.C. §112**

The Examiner has rejected claims 1-5, 14-24, 27-30 and 46-48 under 35 U.S.C. §112, ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection.

With respect to claim 1, Applicant respectfully submits that it is sufficiently clear that a hash value of a trust entity certificate is provided as part of the TIO and that associated trust information is provided as part of the TIO. The associated trust information indicates a level of trust for a trusted entity associated with the trust entity certificate. Thus, Applicant respectfully submits that claim 1 does make sense.

With respect to claim 4, Applicant has herein amended claim 4 to add the transition word "wherein."

With respect to claims 5 and 29, Applicant has herein amended claims 5 and 29 to define the abbreviation CA as "certificate authority."

With respect to claim 14, Applicant respectfully submits that the term "trust information" is sufficiently clear, and may be clearly understood from the specification. Applicant is not required to further limit the term "trust information" and, as such, Applicant has not amended claim 14.

With respect to claim 15, Applicant has herein amended claim 15 to include the word "signing" before "certificate."

With respect to claim 20, Applicant respectfully submits that the claim, as originally filed, indicates that an initial TIO may be sent to the client via a secure channel before using the broadcast channel, however, Applicant has herein amended claim 20 to clarify the claim.

With respect to claim 22, Applicant respectfully submits that the term "trust information" is sufficiently clear, and may be clearly understood from the specification. Applicant is not required to further limit the term "trust information" and, as such, Applicant has not amended claim 22.

With respect to claim 23, Applicant has herein amended claim 23 to include "associated" before "trust information."

With respect to claims 27, 29, and 30, Applicant has herein amended claims 27, 29, and 30 to depend from independent apparatus claim 25.

With respect to claim 28, Applicant has herein amended claim 28 to depend from independent apparatus claim 25.

With respect to claims 28 – 30, Applicant has herein amended claims 28 – 30 to include the transition word “wherein.”

With respect to claim 46, Applicant respectfully submits that it is sufficiently clear that a hash value of a trust entity certificate is provided within the TIO and that associated trust information is provided within the TIO. Thus, Applicant respectfully submits that claim 46 does make sense.

35 U.S.C. §101

The Examiner has rejected claims 1, 2-6, 27, 29-30, 14-17, 19-21, 28, 22-26, and 38-49 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicant respectfully traverses the rejection.

Claims 1 – 6:

With respect to claim 1, Applicant respectfully submits that claim 1 is directed toward a method for delivering certificates with associated trust information from a trust information provider to a client for verification of a received certificate by the client. The result, which is clear from the claim and described in further detail in the specification, is that the client receives a TIO including the hash value of a trust entity certificate as well as associated trust information which indicates a level of trust for a trusted entity associated with the trust entity certificate. Among other concrete, useful, and tangible results, the TIO based trust information received by the client enables the client to verify received certificates, efficiently control Javascript access, perform certificate verification in SSL for providing secure connections between the client and Web servers, and provides many other results described in the specification. Applicant respectfully submits that claim 1 provides a concrete, useful, and tangible result. Furthermore, claims 2 – 6 depend from claim 1.

As such, Applicant submits that claims 1 – 6 meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Claims 14 – 17, 19 – 21, 28:

With respect to claim 14, Applicant respectfully submits that claim 1 is directed toward a method for delivering certificates with associated trust information from a server to a client for verification of a received certificate by the client. Applicant respectfully submits that claim 14 provides a concrete, useful, and tangible result. The result, which is clear from the claim and described in further detail in the specification, is that a TIO is embedded within a client, and the client can connect to the server to determine whether a new TIO is available. If there is a more recent TIO, the server sends the new TIO to the client. As such, the client is able to receive the most recent TIO including the hash value of a trust entity certificate as well as associated trust information for verification of a received certificate by the client. Furthermore, among other concrete, useful, and tangible results, the TIO based trust information received by the client enables the client to verify received certificates, efficiently control Javascript access, perform certificate verification in SSL for providing secure connections between the client and Web servers, and provides many other results described in the specification. Claims 15 – 17, 19 – 21, and 28 depend from claim 14. As such, Applicant submits that claims 14 – 17, 19 – 21, and 28 meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Claims 22 – 24:

With respect to claim 22, Applicant has herein amended claim 22 such that the apparatus is not claimed as functional descriptive material. The apparatus of amended claim 22 claims a client which receives the TIO. As such, the apparatus of amended claim 22 includes structure by which the functionality may be realized. Furthermore, claims 23 – 24 depend from claim 22. As such, Applicant submits that claims 22 – 24 meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Claims 25 – 26:

With respect to claim 25, Applicant has herein amended claim 25 such that the apparatus is not claimed as functional descriptive material. The apparatus of amended claim 22 claims a client which receives the TIO. As such, the apparatus of amended claim 22 includes structure by which the functionality may be realized. Furthermore, claim 26 depends from claim 25. As such, Applicant submits that claims 25 – 26 meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Claims 38 – 45:

With respect to claim 38, Applicant has herein amended claim 38 such that the apparatus is not claimed as functional descriptive material. The apparatus of amended claim 38 claims a client having a TIO embedded therein. Furthermore, Applicant has herein amended claim 38, 39, and 45 to further define the client and server rather than functional means associated with client and server, respectively. As such, Applicant submits that claims 38 – 45 meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Claim 46 – 48:

With respect to claim 46, Applicant respectfully submits that claim 46 is directed toward a method for delivering certificates with associated trust information from a server to a client for verification of a received certificate by the client. The result, which is clear from the claim and described in further detail in the specification, is that the client receives a TIO including the hash value of a trust entity certificate as well as associated trust information. Among other concrete, useful, and tangible results, the TIO based trust information received by the client enables the client to verify received certificates, efficiently control Javascript access, perform certificate verification in SSL for providing secure connections between the client and Web servers, and provides many other results described in the specification. Applicant respectfully submits that claim 46 provides a concrete, useful, and tangible result. Furthermore, claims 47 – 48 depend from claim 46. As

such, Applicant submits that claims 46 – 48 meet the requirements of 35 U.S.C. §101 and are patentable thereunder.

Claim 49:

With respect to claim 49, Applicant respectfully submits that claim 49 is directed toward a method for delivering certificates with associated trust information from a trust information provider to a client for verification of a received certificate by the client. The result, which is clear from the claim and described in further detail in the specification, is that the client receives a TIO including the hash value of a public key embedded in a certificate that represents a trusted entity. Among other concrete, useful, and tangible results, the TIO based trust information received by the client enables the client to verify received certificates, efficiently control Javascript access, perform certificate verification in SSL for providing secure connections between the client and Web servers, and provides many other results described in the specification. Applicant respectfully submits that claim 46 provides a concrete, useful, and tangible result. As such, Applicant submits that claim 49 meets the requirements of 35 U.S.C. §101 and is patentable thereunder.

35 U.S.C. §103

Claims 1-3, 27, 4, 6, 30, 23-26, and 47-49

The Examiner has rejected claims 1-3, 27, 4, 6, 30, 23-26, and 47-49 under 35 U.S.C. §103(a) as being unpatentable over Samar (U.S. 6,304,974, hereinafter "Samar") in view of Vogel et al. (U.S. 6,816,900, hereinafter "Vogel") and further in view of Fischer (U.S. 4,868,877, hereinafter "Fischer"). Applicant respectfully traverses the rejection.

Independent claim 1 recites features of Applicant's invention that Applicant considers to be inventive. In particular, independent claim 1 recites:

A method for delivering certificates with associated trust information from a trust information provider to a client for verification of a received certificate by said client, comprising the steps of:
providing a trust information object (TIO) to said client; and

providing as part of said TIO a hash value of a trust entity certificate and associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate.

[Emphasis added.]

The Samar reference fails to teach or suggest at least Applicant's claim 1 invention as a whole. In particular, Samar discloses a system for managing trusted certificates for authenticating communications for clients belonging to an enterprise. The system assembles a list of trusted certificates containing public keys for authenticating communications signed by associated private keys. The assembly process may include verifying the authenticity of trusted certificates. As admitted by the Examiner, however, Samar fails to teach or suggest providing as part of a TIO a hash value of a trust entity certificate and associated trust information. As such, since Samar fails to teach or suggest the associated trust information, Samar also fails to teach or suggest associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate.

The Vogel and Fischer references alone or in any permissible combination fail to bridge the substantial gap between the Samar reference and Applicant's invention.

In general, Vogel discloses a process for updating root certificates in a root certificate store of a client computer, maintaining the integrity of the existing root certificates and any new root certificates. As taught in Vogel, a cryptographically signed message including a certificate trust list, as well as any new root certificates to be added to the root certificate store, is accessed by an update root control to update the root certificates in the root certificate store. (Vogel, Abstract). Vogel, however, is devoid of any teaching or suggestion of associated trust information indicating a level of trust for a trusted entity associated with said trust entity certificate, as taught in Applicant's invention of claim 1. As such, in the Office Action, the Examiner asserts that Fischer discloses indicating a level of trust for a trusted entity associated with a trust entity certificate. Applicant respectfully disagrees.

In general, Fischer teaches a public key cryptographic system with enhanced digital signature certification which authenticates the identity of the public key holder.

In particular, Fischer is directed towards exchanging of encryption keys between users during secure transactions such as e-commerce transactions. As taught in Fischer, a hierarchy of nested certifications and signatures is employed which indicates the authority and responsibility levels of the individual whose signature is being certified. Fischer teaches that a certifier creates a certificate which includes a trust level. The trust level in the created certificate is associated with the individual to which the certificate is sent. From the teachings of Fischer, it is clear that a individual is a user. For example, Fischer uses an example in which a General Motors supervisor transmits a secure purchase order to a terminal user at a software distribution company. As such, Fischer merely teaches construction of a certificate having a trust level associated with a user who will use the certificate for exchanging secure transactions.

Fischer specifically teaches that "[t]he present invention addresses such problems with the public key or signature cryptographic system relating to authenticating the identity of the public key holder by expanding the capability of digital signature certification. In this regard, a certification methodology is utilized which employs multiple level certification while at the same time indicating the authority and responsibility levels of the individual whose signature is being certified as is explained in detail below." (Fischer, Col. 4, Lines 1 – 9, Emphasis added). In other words, the trust level taught in Fischer is merely associated with an individual user for use during secure communication between the individual user and other individual users.

By contrast, Applicant's invention of claim 1 teaches that trust information indicates a level of trust for a trusted entity associated with a trust entity certificate. In other words, the level of trust taught in Applicant's invention of claim 1 is associated with a trusted entity that issues the associated certificate, not with a user which uses the trust entity certificate. As such, a trust level associated with a user for use in performing secure transactions with other users, as taught in Fischer, is not a level of trust for a trusted entity associated with a trust entity certificate, as taught in Applicant's invention of claim 1. Furthermore, Fischer is devoid of any teaching or suggestion of a trust level associated with the certifier which created the

certificate in which the trust level is included. As such, Fischer fails to teach or suggest a level of trust for a trusted entity associated with a trust entity certificate, as taught in Applicant's invention of claim 1.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Samar, Vogel, and Fischer references, alone or in any permissible combination, fail to teach or suggest Applicant's invention as a whole.

As such, Applicant's independent claim 1 is patentable under 35 U.S.C. §103(a) over Samar in view of Vogel and further in view of Fischer. Independent claims 22, 25, 46, and 49 recite similar relevant limitations and, therefore, for at least the same reasons as discussed above with respect to independent claim 1, these independent claims are also non-obvious and patentable under 35 U.S.C. §103 over Samar, Vogel and Fischer. Furthermore, claims 2-3, 27, 4, 6, 30, 23-24, 26, 47-48 depend, directly or indirectly from independent claims 1, 22, 25, and 46 while adding additional elements. Accordingly, claims 2-3, 27, 4, 6, 30, 23-24, 26, and 47-48 are also non-obvious and patentable over Samar, Vogel and Fischer under §103 for at least the same reasons that claims 1, 22, 25, 46 and 49 are patentable over Samar, Vogel and Fischer under §103. As such, Applicant respectfully requests that the Examiner's rejection of claims 1-3, 27, 4, 6, 30, 23-26 and 47-49 under U.S.C. §103(a) be withdrawn.

Claims 14-21, 28, 22, and 38-46

The Examiner has rejected claims 14-21, 28, 22, and 38-46 under 35 U.S.C. §103(a) as being unpatentable over Samar in view of Vogel. Applicant respectfully traverses the rejection.

For at least the reasons discussed above with respect to independent claim 1, Samar and Vogel alone or in any permissible combination fail to teach or suggest Applicant's invention as a whole. In particular, as described herein with respect to claim 1, Samar and Vogel, alone or in combination, fail to teach or suggest at least the limitation of "indicating a level of trust for a trusted entity associated with said trust entity certificate," as taught in Applicant's invention of claim 14.

As such, Applicant's independent claim 14 is patentable under 35 U.S.C. §103(a) over Samar in view of Vogel. Independent claims 22 and 38 recite similar relevant limitations and, therefore, for at least the same reasons as discussed above with respect to independent claim 14, these independent claims are also non-obvious and patentable under 35 U.S.C. §103. Furthermore, claims 15-21, 28, and 39-46 depend, directly or indirectly, from independent claims 14 and 38 while adding additional elements. Accordingly, claims 15-21, 28, and 39-46 are also non-obvious and patentable over Samar and under §103 for at least the same reasons that claims 14, 22 and 38 are patentable over Samar and Vogel under §103. As such, Applicant respectfully requests that the Examiner's rejection of claims 14-21, 28, 22, and 38-46 under U.S.C. §103(a) be withdrawn.

DOUBLE PATENTING

Applicant notes the Examiner's comments with respect to claims 27, 29, and 30, however, since Applicant has herein amended claims 27, 29, and 30 to depend from claim independent claim 25 rather than Independent claim 21, Applicant respectfully submits that Examiner's comment is moot.

SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to Applicant's disclosure than the primary references cited in the Office Action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.


CONCLUSION

Thus, Applicant submits that all of the claims presently in the application are allowable. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley at (732) 383-1434 or Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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